

## SAFETY DATA SHEET

Version 6.1  
Revision Date 11/06/2019  
Print Date 04/04/2020

**SECTION 1: Identification of the substance/mixture and of the company/undertaking****1.1 Product identifiers**

Product name : Benzyl azide solution

Product Number : 742430  
Brand : Aldrich

**1.2 Relevant identified uses of the substance or mixture and uses advised against**

Identified uses : This chemical/product is not and cannot be distributed in commerce (as defined in TSCA section 3(5)) or processed (as defined in TSCA section 3(13)) for consumer paint or coating removal.

**1.3 Details of the supplier of the safety data sheet**

Company : Sigma-Aldrich Inc.  
3050 Spruce Street  
ST. LOUIS MO 63103  
UNITED STATES

Telephone : +1 314 771-5765  
Fax : +1 800 325-5052

**1.4 Emergency telephone number**

Emergency Phone # : +1-703-527-3887

**SECTION 2: Hazards identification****2.1 Classification of the substance or mixture****GHS Classification in accordance with 29 CFR 1910 (OSHA HCS)**

Skin irritation (Category 2), H315  
Eye irritation (Category 2A), H319  
Carcinogenicity (Category 2), H351  
Specific target organ toxicity - single exposure (Category 3), Central nervous system, H336  
Specific target organ toxicity - repeated exposure (Category 1), H372  
Short-term (acute) aquatic hazard (Category 3), H402

For the full text of the H-Statements mentioned in this Section, see Section 16.

**2.2 GHS Label elements, including precautionary statements**

Pictogram



Signal word

Danger

<b>Hazard statement(s)</b>	
H315	Causes skin irritation.
H319	Causes serious eye irritation.
H336	May cause drowsiness or dizziness.
H351	Suspected of causing cancer.
H372	Causes damage to organs through prolonged or repeated exposure.
H402	Harmful to aquatic life.
<b>Precautionary statement(s)</b>	
P201	Obtain special instructions before use.
P202	Do not handle until all safety precautions have been read and understood.
P260	Do not breathe dust/ fume/ gas/ mist/ vapours/ spray.
P264	Wash skin thoroughly after handling.
P270	Do not eat, drink or smoke when using this product.
P271	Use only outdoors or in a well-ventilated area.
P273	Avoid release to the environment.
P280	Wear protective gloves/ protective clothing/ eye protection/ face protection.
P302 + P352	IF ON SKIN: Wash with plenty of soap and water.
P304 + P340 + P312	IF INHALED: Remove person to fresh air and keep comfortable for breathing. Call a POISON CENTER/doctor if you feel unwell.
P305 + P351 + P338	IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.
P308 + P313	IF exposed or concerned: Get medical advice/ attention.
P332 + P313	If skin irritation occurs: Get medical advice/ attention.
P337 + P313	If eye irritation persists: Get medical advice/ attention.
P362	Take off contaminated clothing and wash before reuse.
P403 + P233	Store in a well-ventilated place. Keep container tightly closed.
P405	Store locked up.
P501	Dispose of contents/ container to an approved waste disposal plant.

### 2.3 Hazards not otherwise classified (HNOC) or not covered by GHS - none

## SECTION 3: Composition/information on ingredients

### 3.2 Mixtures

Synonyms : (Azidomethyl)benzene solution  
 $\alpha$ -Azidotoluene solution

Molecular weight : 133.15 g/mol

Component		Classification	Concentration
<b>Methylene chloride</b>			
CAS-No.	75-09-2	Skin Irrit. 2; Eye Irrit. 2A; Carc. 2; STOT SE 3; H315, H319, H351, H336 Concentration limits: 20 %: STOT SE 3, H336;	<= 100 %
EC-No.	200-838-9		
Index-No.	602-004-00-3		

<b>Benzyl azide</b>			
CAS-No.	622-79-7	Flam. Liq. 3; Self-react. B; Skin Irrit. 2; Eye Irrit. 2A; STOT RE 1; H226, H241, H315, H319, H372	$\geq 5 - < 10$ %

For the full text of the H-Statements mentioned in this Section, see Section 16.

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## SECTION 4: First aid measures

### 4.1 Description of first aid measures

#### General advice

Consult a physician. Show this safety data sheet to the doctor in attendance. Move out of dangerous area.

#### If inhaled

If breathed in, move person into fresh air. If not breathing, give artificial respiration. Consult a physician.

#### In case of skin contact

Wash off with soap and plenty of water. Take victim immediately to hospital. Consult a physician.

#### In case of eye contact

Rinse thoroughly with plenty of water for at least 15 minutes and consult a physician.

#### If swallowed

Never give anything by mouth to an unconscious person. Rinse mouth with water. Consult a physician.

### 4.2 Most important symptoms and effects, both acute and delayed

The most important known symptoms and effects are described in the labelling (see section 2.2) and/or in section 11

### 4.3 Indication of any immediate medical attention and special treatment needed

No data available

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## SECTION 5: Firefighting measures

### 5.1 Extinguishing media

#### Suitable extinguishing media

Use water spray, alcohol-resistant foam, dry chemical or carbon dioxide.

### 5.2 Special hazards arising from the substance or mixture

Carbon oxides, Nitrogen oxides (NO<sub>x</sub>), Hydrogen chloride gas

### 5.3 Advice for firefighters

Wear self-contained breathing apparatus for firefighting if necessary.

### 5.4 Further information

No data available

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**SECTION 6: Accidental release measures****6.1 Personal precautions, protective equipment and emergency procedures**

Use personal protective equipment. Avoid breathing vapours, mist or gas. Ensure adequate ventilation. Evacuate personnel to safe areas.

For personal protection see section 8.

**6.2 Environmental precautions**

Prevent further leakage or spillage if safe to do so. Do not let product enter drains. Discharge into the environment must be avoided.

**6.3 Methods and materials for containment and cleaning up**

Soak up with inert absorbent material and dispose of as hazardous waste. Keep in suitable, closed containers for disposal.

**6.4 Reference to other sections**

For disposal see section 13.

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**SECTION 7: Handling and storage****7.1 Precautions for safe handling**

Avoid contact with skin and eyes. Avoid inhalation of vapour or mist.

For precautions see section 2.2.

**7.2 Conditions for safe storage, including any incompatibilities**

Keep container tightly closed in a dry and well-ventilated place. Containers which are opened must be carefully resealed and kept upright to prevent leakage.

Recommended storage temperature 2 - 8 °C

Light sensitive. Over time, pressure may increase causing containers to burst

Storage class (TRGS 510): 6.1D: Non-combustible, acute toxic Cat.3 / toxic hazardous materials or hazardous materials causing chronic effects

**7.3 Specific end use(s)**

Apart from the uses mentioned in section 1.2 no other specific uses are stipulated

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**SECTION 8: Exposure controls/personal protection****8.1 Control parameters****Components with workplace control parameters**

Component	CAS-No.	Value	Control parameters	Basis
Methylene chloride	75-09-2	TWA	50 ppm	USA. ACGIH Threshold Limit Values (TLV)
	Remarks	Central Nervous System impairment Carboxyhemoglobinemia Substances for which there is a Biological Exposure Index or Indices (see BEI® section) Confirmed animal carcinogen with unknown relevance to humans		
		Substance listed; for more information see OSHA document 1910.1052		

		Potential Occupational Carcinogen See Appendix A		
		PEL	25 ppm	OSHA Specifically Regulated Chemicals/Carcinogens
		1910.1052 This section applies to all occupational exposures to methylene chloride (MC), Chemical Abstracts Service Registry Number 75-09-2, in general industry, construction and shipyard employment. Methylene chloride (MC) means an organic compound with chemical formula, CH <sub>2</sub> Cl <sub>2</sub> . Its Chemical Abstracts Service Registry Number is 75-09-2. Its molecular weight is 84.9 g/mole OSHA specifically regulated carcinogen		
		STEL	125 ppm	OSHA Specifically Regulated Chemicals/Carcinogens
		1910.1052 This section applies to all occupational exposures to methylene chloride (MC), Chemical Abstracts Service Registry Number 75-09-2, in general industry, construction and shipyard employment. Methylene chloride (MC) means an organic compound with chemical formula, CH <sub>2</sub> Cl <sub>2</sub> . Its Chemical Abstracts Service Registry Number is 75-09-2. Its molecular weight is 84.9 g/mole OSHA specifically regulated carcinogen		
		See Table Z-2		
		STEL	125 ppm 435 mg/m <sup>3</sup>	California permissible exposure limits for chemical contaminants (Title 8, Article 107)
		see section 5202		
		PEL	25 ppm 87 mg/m <sup>3</sup>	California permissible exposure limits for chemical contaminants (Title 8, Article 107)
		see section 5202		

Hazardous components without workplace control parameters

### Biological occupational exposure limits

Component	CAS-No.	Parameters	Value	Biological specimen	Basis
Methylene chloride	75-09-2	Dichloromethane	0.3 mg/l	Urine	ACGIH - Biological Exposure Indices (BEI)
	Remarks	End of shift (As soon as possible after exposure ceases)			

## 8.2 Exposure controls

### Appropriate engineering controls

Handle in accordance with good industrial hygiene and safety practice. Wash hands before breaks and at the end of workday.

## Personal protective equipment

### Eye/face protection

Face shield and safety glasses Use equipment for eye protection tested and approved under appropriate government standards such as NIOSH (US) or EN 166(EU).

### Skin protection

Handle with gloves. Gloves must be inspected prior to use. Use proper glove removal technique (without touching glove's outer surface) to avoid skin contact with this product. Dispose of contaminated gloves after use in accordance with applicable laws and good laboratory practices. Wash and dry hands.

### Body Protection

Complete suit protecting against chemicals, The type of protective equipment must be selected according to the concentration and amount of the dangerous substance at the specific workplace.

### Respiratory protection

Where risk assessment shows air-purifying respirators are appropriate use a full-face respirator with multi-purpose combination (US) or type AXBEK (EN 14387) respirator cartridges as a backup to engineering controls. If the respirator is the sole means of protection, use a full-face supplied air respirator. Use respirators and components tested and approved under appropriate government standards such as NIOSH (US) or CEN (EU).

### Control of environmental exposure

Prevent further leakage or spillage if safe to do so. Do not let product enter drains. Discharge into the environment must be avoided.

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## SECTION 9: Physical and chemical properties

### 9.1 Information on basic physical and chemical properties

- |   |   |
|---|---|
| a) Appearance                                   | Form: clear, liquid<br>Colour: colourless, light yellow |
| b) Odour  | No data available                                       |
| c) Odour Threshold                              | No data available                                       |
| d) pH   | No data available                                       |
| e) Melting point/freezing point                 | No data available                                       |
| f) Initial boiling point and boiling range      | No data available                                       |
| g) Flash point                                  | ( )No data available                                    |
| h) Evaporation rate                             | No data available                                       |
| i) Flammability (solid, gas)                    | No data available                                       |
| j) Upper/lower flammability or explosive limits | No data available                                       |
| k) Vapour pressure                              | No data available                                       |
| l) Vapour density                               | No data available                                       |

- |  |  |
|--|--|
| m) Relative density                          | 1.307 g/cm <sup>3</sup> at 20 °C (68 °F) |
| n) Water solubility                          | No data available                        |
| o) Partition coefficient:<br>n-octanol/water | No data available                        |
| p) Auto-ignition<br>temperature              | No data available                        |
| q) Decomposition<br>temperature              | No data available                        |
| r) Viscosity                                 | No data available                        |
| s) Explosive properties                      | No data available                        |
| t) Oxidizing properties                      | No data available                        |

## 9.2 Other safety information

No data available

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## SECTION 10: Stability and reactivity

### 10.1 Reactivity

No data available

### 10.2 Chemical stability

Stable under recommended storage conditions.

### 10.3 Possibility of hazardous reactions

No data available

### 10.4 Conditions to avoid

Exposure to light.

### 10.5 Incompatible materials

Alkali metals, Strong oxidizing agents, Amines, Magnesium, Strong acids and strong bases, Vinyl compounds

### 10.6 Hazardous decomposition products

Hazardous decomposition products formed under fire conditions. - Carbon oxides, Nitrogen oxides (NO<sub>x</sub>), Hydrogen chloride gas

Other decomposition products - No data available

In the event of fire: see section 5

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## SECTION 11: Toxicological information

### 11.1 Information on toxicological effects

#### Acute toxicity

LD50 Oral - Rat - male and female - > 2,000 mg/kg (Methylene chloride)  
(OECD Test Guideline 401)

LC50 Inhalation - Mouse - 4 h - 86 mg/l (Methylene chloride)

Remarks: (ECHA)

LD50 Dermal - Rat - male and female - > 2,000 mg/kg (Methylene chloride)  
(OECD Test Guideline 402)

No data available

**Skin corrosion/irritation**

Skin - Rabbit (Methylene chloride)

Result: Irritations - 4 h

(OECD Test Guideline 404)

Repeated or prolonged exposure may cause skin irritation and dermatitis, due to degreasing properties of the product. (Methylene chloride)

**Serious eye damage/eye irritation**

Eyes - Rabbit (Methylene chloride)

Result: Eye irritation

Remarks: (ECHA)

Risk of corneal clouding. (Methylene chloride)

**Respiratory or skin sensitisation**

Local lymph node assay (LLNA) - Mouse (Methylene chloride)

Result: negative

(OECD Test Guideline 429)

**Germ cell mutagenicity**

Mutagenicity (mammal cell test): chromosome aberration. (Methylene chloride)

Chinese hamster ovary cells

Result: positive

Ames test (Methylene chloride)

Salmonella typhimurium

Result: positive

OECD Test Guideline 474 (Methylene chloride)

Mouse - male and female - Bone marrow

Result: negative

**Carcinogenicity**

Limited evidence of carcinogenicity in animal studies (Methylene chloride)

Suspected human carcinogens (Methylene chloride)

IARC: 2A - Group 2A: Probably carcinogenic to humans (Methylene chloride)

NTP: RAHC - Reasonably anticipated to be a human carcinogen (Methylene chloride)

OSHA: OSHA specifically regulated carcinogen (Methylene chloride)

**Reproductive toxicity**

No data available

**Specific target organ toxicity - single exposure**

Inhalation - May cause drowsiness or dizziness. - Central nervous system (Methylene chloride)

Acute oral toxicity - Nausea, Vomiting, Risk of aspiration upon vomiting., Aspiration may cause pulmonary oedema and pneumonitis. (Methylene chloride)

Acute inhalation toxicity - Possible damages:, mucosal irritations (Methylene chloride)

**Specific target organ toxicity - repeated exposure**

No data available

**Aspiration hazard**

No data available (Methylene chloride)

**Additional Information**

Repeated dose toxicity - Rat - male and female - Oral - 104 Weeks - No observed adverse effect level - 6 mg/kg (Methylene chloride)

Repeated dose toxicity - Rat - male and female - Inhalation - 104 Weeks (Methylene chloride)



RTECS: Not available

Dichloromethane is metabolized in the body producing carbon monoxide which increases and sustains carboxyhemoglobin levels in the blood, reducing the oxygen-carrying capacity of the blood.

Dizziness, Nausea, Vomiting, narcosis, Cough, irritant effects, Unconsciousness, Shortness of breath, respiratory paralysis, somnolence, depressed respiration, CNS disorders, inebriation (Methylene chloride)

Risk of corneal clouding. (Methylene chloride)

The following applies to aliphatic halogenated hydrocarbons in general: systemic effect: narcosis, cardiovascular disorders. Toxic effect on liver, kidneys. (Methylene chloride)

Dichloromethane is metabolized in the body producing carbon monoxide which increases and sustains carboxyhemoglobin levels in the blood, reducing the oxygen-carrying capacity of the blood. (Methylene chloride)

To the best of our knowledge, the chemical, physical, and toxicological properties have not been thoroughly investigated. (Methylene chloride)

Stomach - Irregularities - Based on Human Evidence

Stomach - Irregularities - Based on Human Evidence (Methylene chloride)

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## SECTION 12: Ecological information

### 12.1 Toxicity

Toxicity to fish                      flow-through test LC50 - Pimephales promelas (fathead minnow) - 193.00 mg/l - 96 h (Methylene chloride)  
Remarks: (ECHA)

Toxicity to daphnia and other aquatic invertebrates                      static test LC50 - Daphnia magna (Water flea) - 27 mg/l - 48 h (Methylene chloride)  
(US-EPA)

Toxicity to bacteria                      static test EC50 - activated sludge - 2,590 mg/l - 40 min (Methylene chloride)  
(OECD Test Guideline 209)

### 12.2 Persistence and degradability

Biodegradability                      aerobic - Exposure time 28 d (Methylene chloride)  
Result: 68 % - Readily biodegradable.  
(OECD Test Guideline 301D)

### 12.3 Bioaccumulative potential

Bioaccumulation                      Cyprinus carpio (Carp) - 6 Weeks  
- 250 µg/l(Methylene chloride)

Bioconcentration factor (BCF): 2 - 5.4  
(OECD Test Guideline 305)

Cyprinus carpio (Carp) - 6 Weeks  
- 25 µg/l(Methylene chloride)

Bioconcentration factor (BCF): 6 - 40  
(OECD Test Guideline 305)

#### 12.4 Mobility in soil

No data available (Methylene chloride)

#### 12.5 Results of PBT and vPvB assessment

PBT/vPvB assessment not available as chemical safety assessment not required/not conducted

#### 12.6 Other adverse effects

An environmental hazard cannot be excluded in the event of unprofessional handling or disposal.

Harmful to aquatic life.

No data available

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### SECTION 13: Disposal considerations

#### 13.1 Waste treatment methods

##### Product

Offer surplus and non-recyclable solutions to a licensed disposal company. Contact a licensed professional waste disposal service to dispose of this material. Dissolve or mix the material with a combustible solvent and burn in a chemical incinerator equipped with an afterburner and scrubber.

##### Contaminated packaging

Dispose of as unused product.

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### SECTION 14: Transport information

#### DOT (US)

UN number: 1593 Class: 6.1 Packing group: III

Proper shipping name: DichloromethaneSOLUTION

Reportable Quantity (RQ): 1069 lbs

Poison Inhalation Hazard: No

#### IMDG

UN number: 1593 Class: 6.1 Packing group: III

EMS-No: F-A, S-A

Proper shipping name: DICHLOROMETHANESOLUTION

#### IATA

UN number: 1593 Class: 6.1 Packing group: III

Proper shipping name: DichloromethaneSOLUTION

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### SECTION 15: Regulatory information

#### US TSCA Section 3

This chemical/product is not and cannot be distributed in commerce (as defined in TSCA section 3(5)) or processed (as defined in TSCA section 3(13)) for consumer paint or coating removal.

### **SARA 302 Components**

This material does not contain any components with a section 302 EHS TPQ.

### **SARA 313 Components**

The following components are subject to reporting levels established by SARA Title III, Section 313:

	CAS-No.	Revision Date
Dichloromethane	75-09-2	2007-07-01

### **SARA 311/312 Hazards**

Acute Health Hazard, Chronic Health Hazard

### **Massachusetts Right To Know Components**

	CAS-No.	Revision Date
Dichloromethane	75-09-2	2007-07-01

### **Pennsylvania Right To Know Components**

	CAS-No.	Revision Date
Dichloromethane	75-09-2	2007-07-01

Benzyl azide	622-79-7	
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### **California Prop. 65 Components**

	CAS-No.	Revision Date
, which is/are known to the State of California to cause cancer. For more information go to <a href="http://www.P65Warnings.ca.gov">www.P65Warnings.ca.gov</a> . Dichloromethane	75-09-2	2007-09-28

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## **SECTION 16: Other information**

### **Further information**

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The above information is believed to be correct but does not purport to be all inclusive and shall be used only as a guide. The information in this document is based on the present state of our knowledge and is applicable to the product with regard to appropriate safety precautions. It does not represent any guarantee of the properties of the product. Sigma-Aldrich Corporation and its Affiliates shall not be held liable for any damage resulting from handling or from contact with the above product. See [www.sigma-aldrich.com](http://www.sigma-aldrich.com) and/or the reverse side of invoice or packing slip for additional terms and conditions of sale.

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